

### **REMARKS**

Reconsideration is requested.

Claim 1 has been amended to further define the polyester resin of the invention as including a polybasic carboxylic acid ingredient including three or more dicarboxylic acids. This feature is supported by the description, for example, from the last line on page 26 to the 4<sup>th</sup> line on page 29 and Table 1 on page 57 in the specification. By virtue of the feature, polyester resin particles can be dispersed stably in an aqueous solution.

The claims are submitted to be patentable over the art of record and consideration of the following in this regard is requested.

The following list of art has been cited in the rejections of the claims contained in the Office Action of October 5, 2006, and the documents will be referred to herein by the document numbers, or "D" numbers, shown (which designations are the same for the previously cited D4, D5, D6, D14, D15 and D16 as provided in the Remarks of the Amendment filed November 2, 2005 and May 11, 2006):

D4 – U.S. Patent No. 4,625,220 (Nagashima);

D5 – U.S. Patent No. 4,723,129 (Endo);

D6 – U.S. Patent No. 6,715,869 (Reem);

D14 – U.S. Patent No. 5,464,883 (Sharma);

D15 – U.S. Patent No. 5,922,118 (Johnson);

D16 – U.S. Patent No. 6,454,402 (Koitarbashi);

D17 - U.S. Patent No. 5,977,209 (Breton);

D18 - U.S. Patent No. 6,384,108 (Breton);

D19 - U.S. Patent No. 6,533,408 (Erdtmann); and

D20 - US Patent Application Publication No. 2003/0018100 (Foucher).

The following art rejections are understood to be asserted in the Office Action of October 5, 2006:

(1) Claims 1, 4, 9-10, 15-17, 22-23 and 26-30 have been rejected as allegedly being anticipated by D17 "taken in view of the evidence given in" D18, D4 and D5 (see paragraph number 3 of the Office Action dated October 5, 2006);

(2) Claim 5 has been rejected as allegedly having been obvious over the combination of D17 and D14 (see paragraph 6 of the Office Action dated October 5, 2006);

(3) Claims 7 and 8 have been rejected as allegedly having been obvious over the combination of D17 and D15 (see paragraph number 7 of the Office Action dated October 5, 2006);

(4) Claims 12-14 have been rejected as allegedly having been obvious over the combination of D17 and D19 (see paragraph number 8 of the Office Action dated October 5, 2006);

(5) Claims 1, 4, 9-10, 15-17, 22-23 and 26-30 have been rejected as allegedly having been obvious over the combination of D17, D18, D4 and D5 (see paragraph number 9 of the Office Action dated October 5, 2006);

(6) Claim 5 has been rejected as allegedly having been obvious over the combination of D17, D18, D4, D5 and D14 (see paragraph number 10 of the Office Action dated October 5, 2006);

(7) Claims 7 and 8 have been rejected as allegedly having been obvious over the combination of D17, D18, D4, D5 and D15 (see paragraph number 11 of the Office Action dated October 5, 2006);

(8) Claims 12-14 have been rejected as allegedly having been obvious over the combination of D17, D18, D4, D5 and D19 (see paragraph number 12 of the Office Action dated October 5, 2006);

(9) Claims 1, 4, 9-10, 15-17, 22-23 and 26-30 have been rejected as allegedly having been obvious over the combination of D20 and D16 (see paragraph number 13 of the Office Action dated October 5, 2006);

(10) Claim 5 has been rejected as allegedly having been obvious in view of D20, D16 and D14 (see paragraph number 14 of the Office Action dated October 5, 2006);

(11) Claims 7 and 8 have been rejected as allegedly having been obvious in view of D20, D16 and D15 (see paragraph number 15 of the Office Action dated October 5, 2006);

(12) Claims 12-14 have been rejected as allegedly having been obvious over D20, D16 and D19 (see paragraph number 16 of the Office Action dated October 5, 2006);

(13) Claims 18-21 and 24-25 have been rejected as allegedly having been obvious over D6 and D18 (see paragraph number 17 of the Office Action dated October 5, 2006); and

(14) Claims 18-21 and 24-25 have been rejected as allegedly having been obvious over D6 and D20 (see paragraph number 17 of the Office Action dated October 5, 2006).

**Rejection (1)**

The presently claimed invention includes a polyester resin having a number average molecular weight within a range of from 5,000 to 50,000.

D17 is understood to teach a composition containing a polyester resin with a weight average molecular weight of 800 to 10,000 (column 3, lines 65-66), and preferably a weight average molecular weight of 1,200 to 5000 (column 4, lines 56-57 and column 8, lines 29-31 of D17), wherein "the ratio of the weight average to number average molecular weight [is] about 2.0" (column 4, lines 57-58 and column 8, lines 31-32 of D17). D17 is understood to teach therefore, at best, a composition containing a polyester resin having a number average molecular weight of 400 to 5,000 and preferably 600 to 2,500.

To the extent D18 teaches a resin with a molecular weight different from the resin of D17, the applicants believe D17, as the primary reference of the rejection, is controlling for all that it specifically teaches as it is the combination of specific elements combined in D17 which the Examiner believes anticipates the claims. To the extent D17 and D18 are in conflict (i.e., D17 teaching a different resin molecular weight range) the applicants believe that the teachings of D18 can not negate the specific teachings of D17 .

Moreover, D17 (and D18) fail to teach a polyester resin containing a polybasic carboxylic acid containing three or more dicarboxylic acids, as claimed.

The claims are not believed to be anticipated by D17 as the reference is not believed to teach each and every aspect of the claimed invention. Withdrawal of the Section 102 rejection (rejection (1) above) is requested.

**Rejections (2) - (8)**

As noted above, D17, the primary reference of each of rejections (2)-(8) teaches away from inclusion of a resin having a molecular weight required by the presently claimed invention. Specifically, D17 teaches a preference for a resin having a number average molecular weight of 600 to 2,500. Moreover, D17 fails to teach or suggest a polyester resin containing a polybasic carboxylic acid containing three or more dicarboxylic acids, as claimed. The combination of secondary references fail to cure this deficiency of the primary (D17) reference. The claims are submitted to be patentable over the combination of references recited above with regard to rejections (2) - (8).

**Rejections (9) - (12) and (14)**

Rejections (9) - (12) and (14) are based on the teaching of D20 which is understood to teach a composition containing a polyester-amine resin which would not have been suggestive of the presently claimed composition.

In addition, although D20 may disclose in Example 1 a polyester resin containing aromatic dicarboxylic acid having a metal sulfonate group (sulfoisophthalate), aromatic dicarboxylic acid not having a metal sulfonate group (terephthalate), and aliphatic dicarboxylic acid (aspartic acid), a ratio of the aromatic dicarboxylic acid having a metal

sulfonate group contained in the polybasic carboxylic acid ingredient is 42.9 mol % which is not included in the range of the invention, i.e., 0.5 mol % to 8 mol %. The polyester resin defined in claim 1 of the invention is thus different from and not obvious from the polyester resin of Example 1 disclosed in D20.

Further, as to the glass transition point, D20 discloses a range of glass transition point T<sub>g</sub> in a paragraph [0038], which relates to a polyester amine resin defined by a formula in a latter part of a paragraph [0037]. Since the formula indicates that the polybasic carboxylic acid contains only two dicarboxylic acids of aromatic dicarboxylic acid having a metal sulfonate group and aliphatic dicarboxylic acid having an amino group, the polyester resin defined in claim 1 of the invention is different from and not obvious from the polyester amine resin represented by the formula. Thus, D20 does not disclose the range of the glass transition point of the polyester resin of the invention.

The combination of secondary references fail to cure these deficiencies of the primary (D20) reference. The claims are submitted to be patentable over the combination of references recited above with regard to rejections (9) - (12) and (14).

### **Rejection (13)**

Claims 18-21 and 24-25, which each depend directly from claim 1, are patentable over D6 and D20 for the reasons the Examiner appears to have acknowledged that claim 1 is patentable over D6 and D20 (i.e., the Examiner has not separately rejected claim 1 over either D6 or D20 alone or the combination of D6 and D20). Claims 18-21 and 24-25 are submitted to be patentable over the combination of D6 and D20 and withdrawal of the Section 103 rejection (rejection (13)) is requested.

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The claims are submitted to be in condition for allowance and a Notice to that effect is requested.

The Examiner is requested to contact the undersigned in the event anything further is required.

Respectfully submitted,

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